

Title (en)

DEVICE FOR ATOMIZING A MELT STREAM BY MEANS OF A GAS

Title (de)

VORRICHTUNG ZUR VERDÜSUNG EINES SCHMELZSTROMES MITTELS EINES GASES

Title (fr)

DISPOSITIF D'ATOMISATION D'UN FLUX DE FUSION AU MOYEN D'UN GAZ

Publication

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Application

**EP 20775260 A 20200917**

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Abstract (en)

[origin: CA3152354A1] The invention relates to a device for atomizing a metallic, intermetallic or ceramic melt stream by means of a gas to form a spherical powder, comprising: - a melt chamber (1); - a powder chamber (2); - an induction coil (3) in the melt chamber (1); - a melt material, preferably a melt rod (7), in the induction coil (3); and - an atomizer nozzle (5) for the melt stream (8) of melt material melted by the induction coil (3), which nozzle interconnects the melt- and powder chambers (1, 2) and is arranged in a nozzle plate (4), wherein the atomizer nozzle (5) has an exclusively convergent nozzle profile having nozzle flanks (13) which have a circular-arc-shaped cross section, and therefore the atomizing gas (V) and the melt stream and the droplets generated therefrom reach a maximum velocity which is preferably below the acoustic velocity of the atomizing gas (V).

IPC 8 full level

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